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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,833	11/30/2001	Philip E. Thorpe	4001.002299/ UTSD:0549-2	8102

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EXAMINER	
FETTEROLF, BRANDON J	

ART UNIT	PAPER NUMBER
1642	

MAIL DATE	DELIVERY MODE
06/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/998,833	THORPE ET AL.	
	Examiner	Art Unit	
	Brandon J. Fetterolf, PhD	1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-9,23-27,41 and 49-88* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4,6-9,23,25,27,41,49-55,57-68,70-73,75-85,87 and 88* is/are rejected.

7)☒ Claim(s) *5,24,26,56,69,74,86* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/10/2007 has been entered.

Claims 4-9, 23-27, 41 and 49-88 are currently pending and under consideration.

Specification

The use of the trademark TAXOL has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 59-60 and 73 are rejected under 35 U.S.C. 102(b) as being anticipated by Fishman et al (International Journal of Oncology, 10, 901-904, May, 1997, IDS).

Fishman *et al.* teaches a method of treating melanoma in a murine system, comprising administering antibodies which binds to phosphatidylserine (abstract). With regards to the antibodies, the references teaches that the antibodies are IgG antibodies (page 903, 1st column, 1st full paragraph). In particular, the reference teaches that the anti-PS antibodies exerted an inhibitory effect of 76% on the development of lung metastatic foci in mice inoculated with B-16 melanoma cells (page 903, 1st column, 2nd paragraph). Thus, while Fishman et al. does not characterize the melanoma as being

vascularized, the claimed limitation does not appear to result in a manipulative difference when compared to the prior art disclose because the specification teaches that typical vascularized tumors are solid tumors such as melanomas which require a vascular component for the provision of oxygen and nutrients (paragraph 0388). See Bristol-Myers Squibb Company v. Ben Venue Laboratories 58 USPQ2d 1508 (CAFC 2001). Lastly, even though Fishman et al. does not specifically teach that the anti-PS antibodies target and bind to an aminophospholipid on the luminal surface of blood vessels of the vascularized tumor, the claimed limitation does not appear to result in a manipulative difference when compared to the prior arts disclosure because the specification teaches that antibodies against aminophospholipids, phosphatidylserine, specifically localize to the vasculature of solid tumors (page 5, lines 5-10). Thus, the claimed antibodies appears to be the same as the prior art. The office does not have the facilities and resources to provide the factual evidence needed in order to establish that the antibodies of the prior art does not possess the functional characteristics of the claimed antibodies. In the absence of evidence to the contrary, the burden is on the applicant to prove that the antibodies are different from those taught by the prior art and to establish patentable differences. See In re Best 562F.2d 1252, 195 USPQ 430 (CCPA 1977) and Ex parte Gray 10 USPQ 2d 1922 (PTO Bd. Pat. App. & Int. 1989).

Hence, even though the claims are drawn to a mechanism by which the antibodies bind to an amino phospholipid, e.g., binds to an aminophospholipid on the luminal surface of the tumor vasculature, the claimed method does not appear to distinguish over the prior art teaching of the same or nearly the same method using anti-PS antibodies. The mechanism of action does not have a bearing on the patentability of the invention if the invention was already known or obvious. Mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. In re Wiseman, 201 USPQ 658 (CCPA 1979). Granting a patent on the discovery of an unknown but inherent function would remove from the public that which is in the public domain by virtue of its inclusion in, or obviousness from, the prior art. In re Baxter Travenol Labs, 21 USPQ2d 1281 (Fed. Cir. 1991). See M.P.E.P. 2145.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4, 6-7, 25, 41, 49-55, 57-58, 61-68, 72, 75-82, 84, 87 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishman et al (International Journal of Oncology, 10, 901-904, May, 1997), as applied above to claims 59-60 and 73, in view of Einzig et al. (Investigational New Drugs 1991; 9: 59-64) or O'Reilly et al. (Cell 1997; 88: 277-285, published 1/24/1997) or Plunkett et al. (US 5,382,427, 1995).

Fishman *et al.* teaches a method of treating melanoma in a murine system, comprising administering antibodies which binds to phosphatidylserine (abstract). With regards to the antibodies, the references teaches that the antibodies are IgG antibodies (page 903, 1st column, 1st full paragraph). In particular, the reference teaches that the anti-PS antibodies exerted an inhibitory effect of 76% on the development of lung metastatic foci in mice inoculated with B-16 melanoma cells (page 903, 1st column, 2nd paragraph). Thus, while Fishman et al. does not characterize the melanoma as being vascularized, the claimed limitation does not appear to result in a manipulative difference when compared to the prior art disclose because the specification teaches that typical vascularized tumors are solid tumors such as melanomas which require a vascular component for the provision of oxygen and nutrients (paragraph 0388). See Bristol-Myers Squibb Company v. Ben Venue Laboratories 58 USPQ2d 1508 (CAFC 2001).

Fishman *et al.* does not teach administration of anti-phosphatydilserine (anti-PS) antibodies in combination with a second therapeutic agent which injures or induces apoptosis or interferes with tubulin activity such as Taxol or an anti-angiogenic agent such as endostatin or an inflammatory cytokine such as interleukin 4. Nor does Fishman et al. teach a method of treating a human having a vascularized tumor comprising administering an anti-phosphatidylserine antibody in combination with a second therapeutic agent such as Taxol, endostatin or interleukin 4.

Einzig et al. teach a method of treating a melanoma in a human patient comprising intravenously administering an effective amount of Taxol (page 60, beginning with the 2nd column, 1st full paragraph).

O'Reilly et al. teach a method of treating melanoma in an animal, comprising administering an effective amount of endostatin to regress tumor growth (page 280, 1st column, last paragraph).

Plunkett et al. teach a method of treating melanoma comprising administering an effective amount of interleukin 4, e.g., IL-4 (column 4, lines 21-44 and column 8, line 50 to column 9, line 11).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the references so as to treat melanoma. One would have been motivated to do so because each of the therapeutics have been individually taught in the prior art to be successful at treating melanoma. The instant situation is amenable to the type of analysis set forth in In re Kerkhoven,205 USPQ 1069 (CCPA 1980) wherein the court held that it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to for a third composition that is to be used for the very same purpose since the idea of combining them flows logically from their having been individually taught in the prior art. Applying the same logic to the instant claims, one of ordinary skill in the art would have reasonable expectation the by using an anti-PS antibody in combination with Taxol, endostatin, or IL-4, one would achieve an effective combination for the treatment of melanoma.

Furthermore, it would have been prima facie obvious to one or ordinary skill in the art at the time the invention was made to optimize the administration times of the antibody and second therapeutic agent. One would have been motivated to do so because the selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results, see In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) or In re Gibson, 39 F.2d 975. Thus, one would have a reasonable expectation that the administration of the antibody simultaneously, sequentially or prior to the administration of the second therapeutic agent would result in the treatment of a vascularized tumor.

Claims 83 and 85 rejected under 35 U.S.C. 103(a) as being unpatentable over Fishman et al (International Journal of Oncology, 10, 901-904, May, 1997) in view of Einzig et al. (Investigational

New Drugs 1991; 9: 59-64) or O'Reilly et al. (Cell 1997; 88: 277-285, published 1/24/1997) or Plunkett et al. (US 5,382,427, 1995), as applied above to claims 4, 6-7, 25, 41, 49-55, 57-68, 72-73, 75-82, 84, 87 and 88, in further view of Campbell, A.M. (Monoclonal Antibody Technology, Elsevier Science, NY, 1986, pages 1-33).

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. teach, *supra*, a method of treating melanoma in a patient comprising administering an effective amount of an antibody which binds to phosphatidylserine in combination with a second therapeutic agent such as Taxol, endostatin or IL-4.

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. do not explicitly teach that the antibody is a monoclonal antibody.

Campbell et al. teach a comparison of monoclonal antibodies and conventional antiserum (page 4, 1.2). Specifically, the reference teaches that a specific advantage of monoclonal antibodies is their specificity, which can be used in tumor immunotherapy, wherein the antibody may be used by used by itself, or coupled to drugs or toxins (page 7, 2nd column 1st full paragraph).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to generate a monoclonal antibody to phosphatidylserine in view of the teachings of Campbell et al.. One would have been motivated to do so because as taught by Campbell et al., monoclonal antibodies have a higher specificity than conventional anti-serum antibodies. Thus, one of ordinary skill in the art would have a reasonable expectation that by generating a monoclonal antibody to phosphatydilserine as taught by Fishman et al, one would have method of reducing tumor growth with an antibody that has a higher specificity to phosphatidylserine than the antibody previously used.

Claims 9, 71 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishman et al (International Journal of Oncology, 10, 901-904, May, 1997) in view of Einzig et al. (Investigational New Drugs 1991; 9: 59-64) or O'Reilly et al. (Cell 1997; 88: 277-285, published 1/24/1997) or Plunkett et al. (US 5,382,427, 1995), as applied above to claims 4, 6-7, 25, 41, 49-55, 57-68, 72-73, 75-82, 84, 87 and 88, in further view of Devaux et al (U.S. Patent 6,824,780 B1, 10/29/1999).

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. teach, *supra*, a method of treating melanoma in a patient comprising administering an effective amount of an antibody which binds to phosphatidylserine in combination with a second therapeutic agent such as Taxol, endostatin or IL-4.

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. does not teach that the antibody is a humanized antibody.

Devaux et al also discloses the generation of humanized antibodies. Specifically, Devaux et al. teach that humanized antibodies are better suited for human therapy because they reduce immunogenicity and human anti-mouse antibody (HAMA) response (see columns 23-24).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to generate a humanized antibody to phosphatidylserine in view of the teachings of Devaux et al. One would have been motivated to do so because as taught by Devaux et al., humanized antibodies are better suited for human therapy because they reduce immunogenicity and human anti-mouse antibody (HAMA) response. Thus, one of ordinary skill in the art would have a reasonable expectation that by generating a humanized antibody to phosphatidylserine as taught by Fishman et al, one would have an effective antibody treatment of vascularized tumors in a human patient which would not generate a HAMA response.

Claims 8 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishman et al (International Journal of Oncology, 10, 901-904, May, 1997) in view of Einzig et al. (Investigational New Drugs 1991; 9: 59-64) or O'Reilly et al. (Cell 1997; 88: 277-285, published 1/24/1997) or Plunkett et al. (US 5,382,427, 1995), as applied above to claims 4, 6-7, 25, 41, 49-55, 57-68, 72-73, 75-82, 84, 87 and 88, in further view of Nicolotti (US 4,837,003, 1989).

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. teach, *supra*, a method of treating melanoma in a patient comprising administering an effective amount of an antibody which binds to phosphatidylserine in combination with a second therapeutic agent such as Taxol, endostatin or IL-4.

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. does not teach that the antigen binding fragment of an antibody is an Fab fragment.

Nicolotti teaches antibody fragments, rather than whole antibodies, are better-suited fro in vivo use for diagnostic and therapeutic applications because they are better able to penetrate the desired target site, as well as minimize the problems of immunogenicity and cross-reactivity associated with whole antibodies (column 1, lines 43-49).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to generate a antibody fragments to phosphatidylserine in view of the teachings of Nicolotti. One would have been motivated to do so because as taught by Nicolotti, antibody fragments when used in vivo reduce immunogenicity and cross-reactivity. Thus, one of ordinary skill in the art would have a reasonable expectation that by generating antibody fragments to phosphatidylserine, one would have an antibody fragment which binds to phosphatidylserine which does not cross react and minimizes the problems of immunogenicity associated with whole antibodies.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fishman et al (International Journal of Oncology, 10, 901-904, May, 1997) in view of Einzig et al. (Investigational New Drugs 1991; 9: 59-64) or O'Reilly et al. (Cell 1997; 88: 277-285, published 1/24/1997) or Plunkett et al. (US 5,382,427, 1995), as applied above to claims 4, 6-7, 25, 41, 49-55, 57-68, 72-73, 75-82, 84, 87 and 88, in further view of Wolff et al. (Cancer research 1993; 53: 2560-2565).

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. teach, *supra*, a method of treating melanoma in a patient comprising administering an effective amount of an antibody which binds to phosphatidylserine in combination with a second therapeutic agent such as Taxol, endostatin or IL-4.

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. does not teach that the anti-PS antibody is a dimer of an anti-aminophospholipid antibody.

Wolff et al. teach that antibody dimers show higher binding and remain on the cell surface for longer periods of time as compared to antibody monomers (page 2565, 1st column, 2nd full paragraph).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to generate a dimer of the antiphosphatidyserine antibody as taught by Fishman in view of the teachings of Wolff et al.. One would have been motivated to do so because as taught

by Wolff et al., antibody dimers show higher binding affinity and as a result, remain on the cell surface for longer periods of time as compared to antibody monomers. Thus, one of ordinary skill in the art would have a reasonable expectation that by generating a dimer of the antiphosphatidyserine antibody as taught by Fishman in view of the teachings of Wolff et al., one would have an anti-aminophosphatidylserine antibody having higher binding affinity.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fishman et al (International Journal of Oncology, 10, 901-904, May, 1997) in view of Einzig et al. (Investigational New Drugs 1991; 9: 59-64) or O'Reilly et al. (Cell 1997; 88: 277-285, published 1/24/1997) or Plunkett et al. (US 5,382,427, 1995), as applied above to claims 4, 6-7, 25, 41, 49-55, 57-68, 72-73, 75-82, 84, 87 and 88, in further view of Moossa, A.R., Schimpff, S.C., Robson, M.C.. (Comprehensive Textbook of Oncology, Baltimore, Maryland, 1991).

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. teach, *supra*, a method of treating melanoma in a patient comprising administering an effective amount of an antibody which binds to phosphatidylserine in combination with a second therapeutic agent such as Taxol, endostatin or IL-4.

Fishman et al in view of Einzig et al. or O'Reilly et al. or Plunkett et al. does not teach that the method further comprises surgery.

Moossa et al. teach that the definitive therapy of melanoma has as its aim control of the primary tumor, including prevention of local recurrence and is accomplished by surgical excision (Chapter 134, page 1380, 2nd column).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to further include surgery in the method of treating melanoma taught by Fishman et al, Einzig et al., O'Reilly et al. or Plunkett et al. in view of the teachings of Moossa. One would have been motivated to do so because as taught by Moossa, surgical excision is the definitive therapy of melanoma. Thus, one of ordinary skill in the art would have a reasonable expectation that by further including surgery in the method of treating melanoma taught by Fishman et al, Einzig et al., O'Reilly et al. or Plunkett et al. in view of the teachings of Moossa, one would achieve a definitive therapy of the melanoma.

Note: The Fishman et al. reference was used in a number of prior Non-Final Office actions (9/08/2004), but was withdrawn in view of Appliacant's arguments. Upon reconsideration, the Examiner has applied the Fishman et al. reference to the instant claims and would like to respond to Applicants arguments (5/22/2006) pertaining only to Fishman in order to expedite prosecution.

In response to the citation of Fishman et al., Applicants assert that the Examiner's discussion of Fishman et al. begins with a number of errors. First, Applicants assert that while the Actions cites that Fishman teaches using purified IgG anti-PS antibodies as an effective treatment of melanoma, Fishman dose not actually teach "an effective treatment of melanoma", but only "an inhibitory effect on metastasis" (Fishman at page 903, column 1), which is not equivalent to and does not teach or suggest, methods for treating tumors, as in the presently claimed invention (see specification pages 7-16 for definition of therapeutically effective amounts). For example, Applicants assert, as made in the Declaration of Professor Adrian L. Harris, that anti-angiogenic therapy which results in inhibiting metastasis is completely different from, and does not suggest, methods of treating tumors by targeting established, vasculature of a solid tumor which have many advantages.

These arguments have been carefully considered, but are not found persuasive.

First, regarding Applicants assertions that Fishman teaches an inhibitory effect on metastasis and not an effective treatment of melanoma as claimed, the Examiner acknowledges that Fishman teaches, *supra*, that the anti-PS antibodies exerted an inhibitory effect of 76% on the development of lung metastatic foci in mice inoculated with B-16 melanoma cells. However, the Examiner recognizes that Fishman clearly states that the "anti-PS autoantibodies, derived from patients with APLS, as effective treatment for melanoma in a murine system." (Fishman abstract). Secondly, regarding Applicants assertions with respect to the definition of therapeutically effective, it is noted that the features upon which applicant relies (i.e., kill at least a portion of tumor vascular endothelial cells, promote coagulation in at least a portion of tumor blood vessels, occlude or destroy at least a portion of blood transporting vessels of the tumor, induce necrosis in at least a portion of a tumor, and/or induce tumor regression or remission) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Moreover, while Applicants assert that the presently claimed invention, e.g., "mechanism", is completely different

from the "mechanism" taught by Fishman et al., the Examiner recognizes that the mechanism of action does not have a bearing on the patentability of the invention if the invention was already known or obvious. In other words, the Examiner recognizes that Fishman et al. teach an effective treatment of melanoma, which in view of the specification is a vascularized tumor (paragraph 0388), comprising administering anti-PS antibodies. As such, Fishman teaches all the claimed limitations of claim 73 which is drawn to treating a an animal having a vascularized tumor, comprising administering a therapeutically effective amount of a first antibody that binds and targets an aminophospholipid of an aminophospholipid-protein complex.

Claims 5,24,26,56,69,74 and 86 appear to be free of the prior art, but are objected to for being dependent from a rejected independent claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Fetterolf, PhD whose telephone number is (571)-272-2919. The examiner can normally be reached on Monday through Friday from 7:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on 571-272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brandon J Fetterolf, PhD
Patent Examiner
Art Unit 1642

BF